Abstracts

A new analytical small-signal model of dual-gate GaAs MESFET

M. Ibrahim, B. Syrett and J. Bennett. "A new analytical small-signal model of dual-gate GaAs MESFET." 2001 MTT-S International Microwave Symposium Digest 01.2 (2001 Vol. II [MWSYM]): 1277-1280 vol.2.

The development of an analytical small-signal model for the intrinsic elements of a dual gate GaAs MESFET (DGMESFET) is described. The model is based on splitting the Z-parameters of each FET part analytically without any simplifications or assumptions. The model is extracted directly from the measured three-port S-parameters. No extra measurements are required, thus reducing the lengthy procedures needed to characterize the DGMESFET. Experimental verification of the new model is presented.

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